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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,216	11/08/2001	Li Yang	791 170	5554

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BURR & BROWN  
PO BOX 7068  
SYRACUSE, NY 13261-7068

EXAMINER

TSANG FOSTER, SUSY N

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 08/15/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/009,216

Applicant(s)

YANG ET AL.

Examiner

Susy N Tsang-Foster

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-28 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Election/Restrictions*

1. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

1) an organic inhibitor which function as a Cu-corrosion inhibitor or a Cu-trapping agent containing a polar group having a central element N that is contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

2) an organic inhibitor which function as a Cu-corrosion inhibitor or a Cu-trapping agent containing a polar group having a central element P that is contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

3) an organic inhibitor which function as a Cu-corrosion inhibitor or a Cu-trapping agent containing a polar group having a central element As that is contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

4) an organic inhibitor which function as a Cu-corrosion inhibitor or a Cu-trapping agent containing a polar group having a central element O that is contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

5) an organic inhibitor which function as a Cu-corrosion inhibitor or a Cu-trapping agent containing a polar group having a central element S that is contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

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6) a sulfur compound that is an organic inhibitor which function as a Cu-corrosion inhibitor or a Cu-trapping agent contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

7) an imidazole-analogue organic compound which function as a Cu-corrosion inhibitor or a Cu-trapping agent contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

8) an organic inhibitor which function as a Cu-corrosion inhibitor or a Cu-trapping agent containing a polar group having a central element Se that is contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

9) an inorganic phosphate inhibitor which function as a Cu-corrosion inhibitor or a Cu-trapping agent contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

10) an inorganic chromate inhibitor which function as a Cu-corrosion inhibitor or a Cu-trapping agent contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

11) an inorganic Fe containing inhibitor which function as a Cu-corrosion inhibitor or a Cu-trapping agent contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

12) an inorganic nitrite inhibitor which function as a Cu-corrosion inhibitor or a Cu-trapping agent contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

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13) an inorganic silicate inhibitor which function as a Cu-corrosion inhibitor or a Cu-trapping agent contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

14) a compound having an organic base and an inorganic acid which are unitarily combined in a molecule contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

15) a cyclic compound containing a N-O radical in a molecular structure having general formula I contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

16) a cyclic compound containing a N-O radical in a molecular structure having general formula II contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

17) a cyclic compound which becomes a  $Mn^{2+}$  supplier in the nonaqueous electrolyte solution contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

18) a compound containing an atom showing Lewis acidity and an atom showing Lewis basicity in one molecule molecularly-structurally contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

19) a three-dimensional siloxane compound contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

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20) a nonionic surfactant contained in at least one of the positive electrode, the negative electrode, the separator, and the nonaqueous solution;

21) a water-extracting agent contained in the nonaqueous electrolyte solution;

22) an organic silicon compound that is a hydrofluoric acid-extracting agent contained in the nonaqueous electrolyte solution; and

23) an organic antimony compound that is a hydrofluoric acid-extracting agent contained in the nonaqueous electrolyte solution.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

2. The claims are deemed to correspond to the species listed above in the following manner:

Claims 1 and 2 correspond to species number 1.  
Claims 1 and 2 correspond to species number 2.  
Claims 1 and 2 correspond to species number 3.  
Claims 1 and 2 correspond to species number 4.  
Claims 1 and 2 correspond to species number 5.  
Claims 1 and 3 correspond to species number 6.

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Claims 1 and 4 correspond to species number 7.  
Claims 1 and 2 correspond to species number 8.  
Claims 1 and 5 correspond to species number 9.  
Claims 1 and 5 correspond to species number 10.  
Claims 1 and 5 correspond to species number 11.  
Claims 1 and 5 correspond to species number 12.  
Claims 1 and 5 correspond to species number 13.  
Claims 1, and 6-9 correspond to species number 14.  
Claims 1, 10, and 11 correspond to species number 15.  
Claims 1, 10, and 12 correspond to species number 16.  
Claims 1 and 13 correspond to species number 17.  
Claims 1 and 14 correspond to species number 18.  
Claim 1 corresponds to species number 19.  
Claims 1, 15, and 16 correspond to species number 20.  
Claims 1, 20, and 21 correspond to species number 21.  
Claims 1, and 22-24 correspond to species number 22.  
Claims 1, and 22-24 correspond to species number 23.

The following claim(s) are generic: Claims 1, 17-19, and 25-28 are generic.

3. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: the species listed above do not satisfy the two criteria of having a common property and a common structure. Furthermore, the species listed above do not belong to a recognized class of chemical compounds in the art to which the invention pertains.

4. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

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application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6. Any inquiry concerning this communication or earlier communications should be directed to examiner Susy Tsang-Foster, Ph.D. whose telephone number is (703) 305-0588. The examiner can normally be reached on Monday through Thursday from 9:30 AM to 8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at (703) 308-2383. The phone number for the organization where this application or proceeding is assigned is (703) 305-5900.

The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9310 for regular communications and (703) 872-9311 for After-Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

st/13 August 2003



Susy Tsang-Foster  
Primary Examiner  
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